AMPLITUDE AND PHASE MATCHING FOR LAYERED MODULATION RECEPTION

ABSTRACT OF THE DISCLOSURE

An apparatus and method for receiving layered modulation signals is disclosed. A typical

5   method includes receiving a layered modulation signal including an upper layer signal and a lower layer signal, demodulating and decoding the upper layer signal from the received layered modulation signal, estimating an upper layer amplitude factor and an upper layer phase factor from the received layered modulation signal. A substantially ideal upper layer signal is reconstructed from the demodulated and decoded upper layer signal including matching an ideal

10   amplitude and an ideal phase by applying the upper layer amplitude factor and the upper layer phase factor to the reconstructed ideal upper layer signal. Finally, the reconstructed ideal upper layer signal is subtracted from the received layered modulation signal to produce the lower layer signal for processing.